

## REMARKS

Claims 11-30 stand rejected under 35 USC §103(a) as being unpatentable over Yee in view of Hui. Applicant respectfully traverses this rejection.

As the Examiner points out, Yee discloses (in Fig. 16) transmitting two data signals. The two signals can be orthogonally polarized. However, Fig. 16 lacks a polarization control element that allows an optical multiplex signal to be feed to a polarization splitter, as recited in claim 1. The Examiner points to a “polarization controller 139” shown in Fig. 1 for this element. However, it is clear that “polarization controller 139” in Yee does not receive a multiplex signal that is a result of orthogonally polarizing the first and the second sideband modulated signals to each other, combining the first and the second sideband modulated signals. The Yee “so-called” polarization controller is used to match the polarization of a local oscillator and a tone. There is no disclosure or suggestion in Yee that polarization controller 139 can receive the optical multiplex signal recited in claim 1.

As noted in MPEP §2131, “the identical invention must be shown in complete detail as is contained in the ....claim.” This clearly is not the case, since each element is not disclosed (or rendered obvious) by any specific embodiment. The Examiner is merely taking random embodiments and combining the elements to arrive at the claimed invention. This is improper.

Furthermore, the signal in Yee does is not fed to an optical splitter via the polarization controller 139, in fact there is no optical splitter in the embodiment of Fig. 1.

Therefore, Applicant submits that independent claim 11 and its dependent claims are allowable.

Moreover the dependent claims further distance themselves from the prior art. For example, claim 19 recites that the first or second sideband modulated signal is delayed at the transmitting end for the purpose of decorrelation. For this element, the Examiner points to Hui reference numeral 112. However, Hui clearly teaches away from optical delay by stating that optical delay line 112 is slow and

bulky. Therefore, one of ordinary skill in the art would not have combined the optical delay line of Hui with Yee.

In response to arguments above, the Examiner disagrees with Applicants arguments and cites the following passage as disclosing the claimed features.

In FIG. 1, the polarization controller 139 is shown located between the local oscillator 132 and combiner 136 and controls the polarization of the local oscillator signal 134. Alternately, the polarization controller 139 may be located between the fiber 120 and combiner 136 and control the polarization of the optical signal 142.

Additionally, with respect to the argument that Yee fails to disclose an optical splitter, the Examiner notes element 1632-1635 which are described as optical splitters.

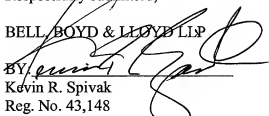
Applicants response accordingly. Claim 11 has been amended to incorporate claims 12 and 13, now cancelled. In this regard, Yee fails to disclose two polarized signals and two single sideband signals. Rather, according to col. 6, lns. 65 – col. 7, ln. 1 of Yee, double sideband modulation is used. Moreover, only one carrier  $f_c$  signal I shown in Fig. 1, not two.

Additionally, in Yee, the differential frequency  $\Delta f$  is the difference frequency between the carrier frequency  $f_c$  and the optical oscillator frequency  $f_{LO}$ , which results in an electrical signal (tone) 156 (see, for example, Fig. 1 and col. 9, lns. 1-2). However the  $\Delta f$  has nothing to do with signal overlap, as required by the claimed invention.

In view of the above, Applicants submit that this application is in condition for allowance. An indication of the same is solicited. The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing, referencing Attorney Docket No. 119010-054.

Respectfully submitted,

BELL, BOYD & LLOYD LLP

BY:   
Kevin R. Spivak  
Reg. No. 43,148  
Customer No. 29177

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